Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte EMMANUEL W.J.L OOMEN and JOSEPH G. VAN LIEROP

Appeal No. 1998-1060
Application No. 08/433,664

ON BRIEF

Before URYNOWICZ, FLEMING, and HECKER, ***Administrative Patent Judges***.

HECKER, ***Administrative Patent Judge***.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 5 through 9. An amendment after final rejection (paper no. 8) canceled claim 9 and replaced it with claim 10. Thus the claims on appeal are 5 through 8[1] and 10, all claims pending in this application.

[1] As noted by the Examiner, the appendix to the brief included a slight error in claim 8, i.e., "Al" had been omitted from the claim.

The invention relates to a method of manufacturing a filtering layer on the faceplate of a display device such as a cathode ray tube. In particular, the filtering layer contains silicon dioxide, a metal oxide, and a dye.

The sole independent claim 5 is reproduced as follows:

5. A method of manufacturing a filtering layer of silicon on a display screen of a display device, characterized in that the filtering layer is manufactured by providing, on the display screen, a coating of a mixture of an alcoholic solution of an alkoxysilane compound, an alkoxy compound of at least one metal selected from the group consisting of Ge, Zr, Al and Ti, acidified water and a black dye and then heating said thus coated display screen to a temperature sufficient to form silicon dioxide from the alkoxysilane compound and to form an oxide of said metal from said alkoxy compound thereby forming the filtering layer comprising silicon dioxide, an oxide of the metal and the dye.

The Examiner relies on the following references:

Kato et al. (Kato)	4,787,716	Nov. 29, 1988
Kawamura et al. (Kawamura)	5,291,097	Mar. 1, 1994 (filed May 1, 1991)
Kojima et al. (Kojima)	EP 517,611	Dec. 9, 1992

Appellants' Admitted Prior Art(APA)(pg. 1, line 20-pg. 2, line 2)

Claims 5 through 8 and 10 stand rejected under 35 U.S.C. § 103 as being unpatentable over either APA or Kojima in view of Kawamura and further in view of Kato.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the brief, reply brief, supplemental reply brief, answer, answer to reply brief and response to supplemental reply brief.

OPINION

After a careful review of the evidence before us, we will not sustain the rejection of claims 5 through 8 and 10 under 35 U.S.C. § 103.

The Examiner has failed to set forth a ***prima facie*** case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the reasonable teachings or suggestions found in the prior art, or by a reasonable inference to the artisan contained in such teachings or suggestions. ***In re Sernaker***, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). "Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." ***Para-Ordnance Mfg. v. SGS Importers Int'l, Inc.***, 73 F.3d 1085, 1087, 37 USPQ2d 1237,

1239 (Fed. Cir. 1995) (***citing W. L. Gore & Assocs., Inc. v. Garlock, Inc.***, 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983), ***cert. denied***, 469 U.S. 851 (1984)).

The Examiner reasons that APA and Kojima teach the claimed method of manufacturing a cathode ray tube having a filtering layer with silicon dioxide and a dye but fail to teach incorporating a metal oxide in the coating composition of the filter layer. Kawamura teaches a cathode ray tube having a layer on the face plate comprising of a dye, an electroconductive metal oxide and silica gel (answer-page 5). The Examiner states:

> Therefore, it would have been obvious for one skilled in the art at the time the invention was made to have incorporated a metal oxide as evidenced by Kawamura et al. (5,291,097) in either Applicant's admitted state of the art (specification, pg. 1, line 20-pg. 2, line 2) or Kojima (EP-517611) filtering layer because one skilled in the art would want to obtain the benefits associated with the metal oxide's use, i.e. effective in removing the electricity generated on the panel by static induction (col. 1, lines 5-10). [Answer-pages 5 and 6.]

Appellants argue that APA fails to teach the use of an alkoxy compound of the metal to form the metal oxide (brief-top of page 5) and Kojima fails to teach forming the silicon dioxide from alkoxysilane **and** the metal oxide from an alkoxy compound of the metal. Further, Kawamura fails to teach forming the metal oxide by heating an alkoxy derivative of the metal (brief-top of page 6).

Claim 5 recites that the silicon dioxide is formed from heating the alkoxysilane compound, and the metal oxide is formed from heating the alkoxy compound of the metal. We note that APA does teach forming the silicon dioxide from heating the alkoxysilane compound (as indicated by the Examiner). However, Appellants are correct in that APA does not teach forming the metal oxide from an alkoxy compound of the metal. Appellants are further correct in that Kojima and Kawamura also fail to teach forming the metal oxide from an alkoxy compound of the metal. Even though Kawamura teaches the desirability of using a metal oxide in the filtering layer of a cathode ray tube coating, we see no teaching of the claimed

method of obtaining this element in the coating. The Examiner states:

> Hence, it is the Examiner's position that one skilled in the art at the time [of] the invention would have found the use of an alkoxy compound, i.e. tetraalkoxy metal, as an obvious variation for the manufacturing of a metal oxide layer. [Answer-page 7.]

We are not inclined to dispense with proof by evidence when the proposition at issue is not supported by a teaching in a prior art reference, common knowledge or unquestionable demonstration. Our reviewing court requires this evidence in order to establish a ***prima facie*** case. ***In re Knapp-Monarch Co.***, 296 F.2d 230, 232, 132 USPQ 6, 8 (CCPA 1961); ***In re Cofer***, 354 F.2d 664, 668, 148 USPQ 268, 271-72 (CCPA 1966). Furthermore, the Federal Circuit states that "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." ***In re Fritch***, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), ***citing In re Gordon***, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). "Obviousness may not be

established using hindsight or in view of the teachings or suggestions of the inventor." ***Para-Ordnance Mfg. v. SGS Importers Int'l***, 73 F.3d at 1087, 37 USPQ2d at 1239, ***citing W. L. Gore & Assocs., Inc. v. Garlock, Inc.***, 721 F.2d at 1551, 1553, 220 USPQ at 311, 312-13.

Since there is no evidence in the record that the prior art suggested the claimed method of heating an alkoxy compound of the metal to obtain the metal oxide, we will not sustain the Examiner's rejection of claim 5.

The remaining claims on appeal also contain the above limitation discussed in regard to claim 5 and thereby, we will not sustain the rejection as to these claims.

We have not sustained the rejection of claims 5 through 8 and 10 under 35 U.S.C. § 103. Accordingly, the Examiner's decision is reversed.

REVERSED

STANLEY M. URYNOWICZ, Jr. Administrative Patent Judge	)
MICHAEL R. FLEMING Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
STUART N. HECKER Administrative Patent Judge	)

jg

CORPORATE PATENT COUNSEL
US PHILIPS CORPORATION
PATENT DEPARTMENT
580 WHITE PLAINS ROAD
TARRYTOWN, NY 10591